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REPORT OF THE

Secretary of Agriculture

1952

RALPH R. SHAW

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To the President

INTRODUCTION

In recent years, the people of the United States have placed on the Department of Agriculture greatly increased responsibilities for aid to farmers in stepping up production of food and fiber—the food and fiber we must have for our civilian population, for our defense industries, for our armed forces, and for assistance to the peoples associated with us in defending the free world against the threat of communist expansion and domination.

This report recounts, in brief, what the Department has done in the past year to discharge its responsibilities.

Year by year, it becomes more evident that the growing efficiency of American agriculture is the basic foundation upon which our economic and military power rest.

Steel is vital. So are oil, aluminum, coal, rubber, and many other elements in our economic and defense organization.

But none of these elements—nor even all of them combined—is as essential to our security and well-being as is food.

We live in an era that has often been called the power age. It is an age of electricity and of mechanical and automotive power which have changed the old-time ways of production. But this is a power age in another sense also, and indeed an unfortunate sense. It is an era in which economic and military power have become dominant.

In the Far East the forces of communism have millions of men under arms. In Europe the forces of communism have many divisions mounting a threat to freedom. The Kremlin-dominated world has some 800 million persons within its orbit.

The United States, with a population of less than 160 million, is outnumbered 5 to 1. Even when our manpower is joined to that of Free Europe, we are still outnumbered by almost 2 to 1.

Were it not for one basic fact, this manpower disadvantage might well be decisive.

That single basic fact is that mankind has never found a way to work, or to fight, without food. First, man must eat.

In last year's report I pointed out that only about 15 percent of our population lives on farms and that only about 11 percent of our civilian labor force, one person out of nine, is actually engaged in farming. I contrasted this situation with that of certain other nations in which as many as seven persons out of eight in the working force were engaged in making their living from the land. I mentioned this contrast as one of the major factors underlying our position of power and prestige in today's world.

It is estimated that in prewar Russia more than half the population was engaged in agriculture. Allowing for reasonable improvement since then, it is probable that it still takes approximately one farm family in Russia to produce enough food and fiber for two families.

If we, like the Soviet Union, had half our labor force in agriculture, as we did in 1880, for example, where would the Free World look for the industrial power to check the onslaughts of the communist aggressors? Where would we ourselves look for the manpower to build aircraft, ships, tanks, and other weapons, much less to operate them?

The release of manpower from the job of tilling the land is the first and most basic contribution of American agriculture to the growth of our Nation. It is one of the major reasons why we now produce as much total industrial output as the rest of the world combined.

But this is not all. From American farms and forests come many of the raw materials that industries, both defense and nondefense, must have in order to operate.

Altogether, it has been estimated that nearly two-thirds of the raw materials that enter into our manufacturing and processing industries are produced on American farms and forest land.

This dependence of our whole economy upon the relatively small part of our people engaged in agriculture is a basic truth which our Nation cannot afford to overlook.

Our agriculture has always met whatever challenge the American people have presented to it. But this has been true particularly of the past decade. Throughout that decade from 1942 to the present, with the sole exception of 1950, farmers have been confronted with various production goals.

Here is the record of challenge and performance. During the heart of World War II—from 1942 through 1945—farmers were asked to maintain production at about 23 percent above the 1935–39 level. Production for those crucial years actually averaged 28 percent above prewar.

During the postwar period, 1946 through 1949, when American food and fiber supplies constituted one of the chief aids to world reconstruction, the goals called for maintaining farm production at about 27 percent above 1935–39. Again, actual production exceeded the goal, averaging 34 percent above the base level.

With the outbreak of the Korean conflict in June 1950, production guides on important crops were set up for 1951. The goals called for more than a 50 percent increase in cotton acreage and for substantial increases in some other crops.

This time although agriculture set a new record for total output, it did not quite meet the goals. Production was 39 percent above 1935–39, whereas the goals called for a 43 percent increase. But the major reason farmers did not meet the goals is because drought and floods caused the abandonment of 26 million acres which had been planted but could not be harvested.

This year American agriculture has set another new record for total output, approximately 43 percent above the average production of 1935–39. This new record has been set with 2 million fewer farm workers than in 1935–39, and about 250,000 fewer than in 1951. It has been achieved in the face of reduced net income in recent years and rising costs of farm operation. It has been possible only because farmers, person for person, are now producing considerably more than ever before in our history.

THE 1952 RECORD

Farm output per man-hour in 1952 was at an all-time high, 70 percent above the 1935–39 average and nearly 5 percent above 1951. The Nation's farms, with an agricultural labor force about 2½ percent smaller, turned out almost 3 percent more than in 1951.

For four years the estimated number of people working on farms has gone down every month from the number for the same month of the preceding year. Altogether, farm employment has shrunk by about 1¼ million workers during the past 5 years.

Moreover, farmers found themselves faced with steadily rising costs and the need for using very large quantities of important supplies in their all-out production effort. In 1952 it is estimated that farmers had available for use approximately 5.57 million tons of the three primary plant nutrients combined, whereas in 1940 they used only about 1.77 million tons.

Farmers had about five times as much invested in machinery and motor vehicles as they had in 1940.

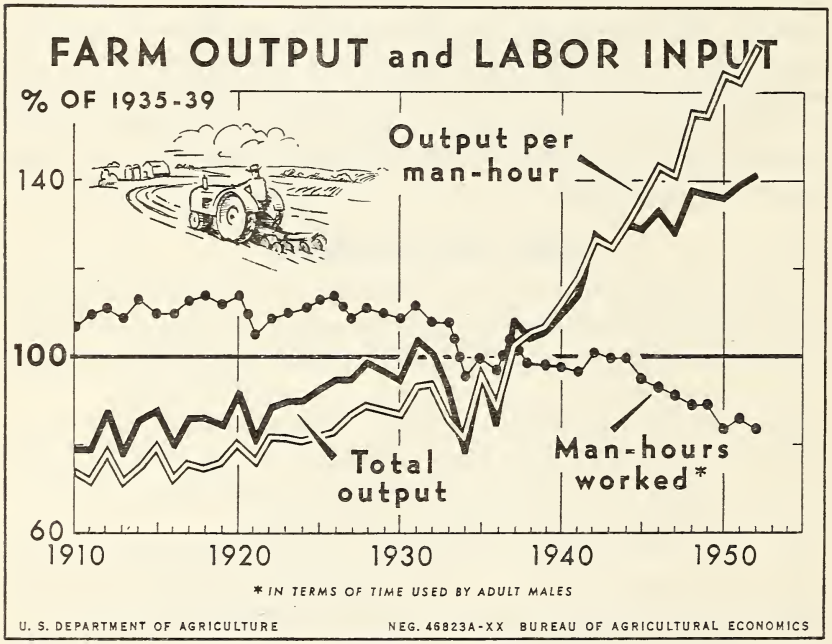
At the beginning of 1952 farmers owned about 4⅕ million tractors, or over 200,000 more than the year before. They owned about 2,400,000 trucks, 100,000 more than at the beginning of 1951.

They had 4,350,000 automobiles, which was a gain of 70,000. The quantity of other machinery on farms was up about 9 percent over the previous year.

Production, Yields, and Acreage

The total farm output in 1952, as already noted, was 43 percent larger than in the 1935–39 period, and set a new record. The total quantity of foodstuffs available to consumers was an all-time high.

Although yields of many crops were less than in 1951, due to bad weather, yields generally were above average. The composite yield index for 28 major crops, calculated by the Bureau of Agricultural Economics in December, stood at 150 percent of the 1923–32 base, about 1 percent under the 1948 record mark, but otherwise the highest in history: New highs were reached for winter wheat, rice, dry edible beans, and sugar beets, whereas yields for spring wheat, oats, rye,



A key part of the technological revolution under way in agriculture, and largely a product of it, has been the rapid increase in output per man-hour of labor on farms. Output per man-hour is now the greatest in history. It is now nearly 2⅓ times that of 40 years ago, with most of the gain having occurred during the last 15 years. This decade and a half witnessed rapid progress in farm mechanization and sharp inrcreases in yields of crops and livestock because of widespread adoption of improved farming practices. These changes have made possible a great rise in total farm output, with fewer man hours spent at farm work.

grain sorghums, sweetpotatoes, and several other crops were below average.

The principal crops were planted or grown in 1952 on about 355 million acres, about 7 million acres less than in 1951. Wheat acreage was up 15 percent; corn, 1 percent; and oats, about 6 percent.

There were acreage decreases for cotton, which were down 6 percent; sugar beets, down 2 percent; barley, 12 percent; and flaxseed, 13 percent.

Total wheat production for 1952 was estimated in December at 1,291,447,000 bushels, compared with 980,810,000 bushels in 1951, and 20 percent above the 1941–50 average. Wheat supplies for the marketing year are calculated at about 1,570 million bushels. These supplies include the 1952 crop, plus imports of feeding-quality wheat estimated at about 25 million bushels, and carryover of 254 million bushels.

Domestic requirements of wheat in 1952–53 may total about 700 million bushels—about 500 million for civilian and military food, 88 million for seed, and 115 million for feed. Should exports for the

Total farm output, man-hours of farm work, and output per man-hour, United States, 1910–52

Index numbers (1935–39=100)

Year	Farm output	Man-hours of farm work [1]	Output per man-hour	Year	Farm output	Man-hours of farm work [1]	Output per man-hour
1910	79	107	74	1933	93	108	86
1911	79	110	72	1934	79	96	82
1912	87	111	78	1935	96	100	96
1913	78	109	72	1936	85	97	88
1914	86	113	76	1937	108	105	103
1915	88	110	80	1938	105	99	106
1916	80	110	73	1939	106	99	107
1917	86	113	76				
1918	86	114	75	1940	110	98	112
1919	85	112	76	1941	114	97	118
				1942	128	101	127
1920	92	114	81	1943	125	100	125
1921	81	105	77	1944	130	100	130
1922	89	109	82	1945	129	95	136
1923	90	110	82	1946	133	93	143
1924	90	111	81	1947	128	91	141
1925	93	113	82	1948	138	89	155
1926	95	114	83	1949	137	89	154
1927	95	109	87				
1928	99	111	89	1950	136	83	164
1929	97	110	88	1951	139	86	162
				1952 [2]	141	83	170
1930	95	109	87				
1931	104	112	93				
1932	101	108	94				

[1] In terms of the time required by average adult male workers.
[2] Preliminary.

July–June year total about 340 million bushels, about 550 million bushels would remain for carry-over on July 1, 1953.

The 1953 production goal for wheat is 72 million acres, or about 5.5 million acres less than for 1952. Under average yield conditions, this would mean a harvest of about 1,080 million bushels. A crop of this size in 1953, together with the carry-over and imports, would provide a total supply of domestic wheat of approximately 1,630 million bushels, about 50 million bushels more than the total supply available for the marketing year, 1952–53. The support level for wheat will be 90 percent of the parity price at the beginning of the marketing year, but not less than $2.21 per bushel.

Corn production for 1952 was estimated in December at 3,307 million bushels, compared with 2,899 million in 1951, and the 1941–50 average of 3,012 million bushels. Production of corn for grain was estimated at 3,002 million bushels, compared with 2,618 in 1951. The national average price support on 1952 corn was $1.60 per bushel, 3 cents higher than in 1951. In 1953 corn will again be supported at 90 percent of parity.

Corn supplies in 1952–53 are estimated at 3,795 million bushels, as against 3,681 million bushels the previous year. Total domestic use and exports in 1952–53 may be about 3,233 million bushels.

The 1952 cotton crop, estimated in December at 15,038,000 bales of 500 pounds, or 14.9 million running bales, is 1 percent smaller than the large 1951 crop but 28 percent above the 10-year average. The supply of all cotton in the United States for the marketing year which began August 1, 1952, is estimated at about 17.8 million running bales. Total requirements for the 1952–53 marketing year are estimated at 14 million running bales, consisting of about 9.5 million bales for domestic use and 4.5 million for export.

The second largest soybean crop on record was a principal feature of the 1952 oil-seed harvest, though the peanut and flaxseed crops were below average. Commercial fresh market truck crops totaled about 9.4 million tons, 1 percent more than 1951 but 10 percent above average. The output of 11 important processing crops was about 9 percent less than the record 1951 production. Output of deciduous fruits was also 9 percent less than 1951, and 6 percent below average. Tobacco production is about 5 percent less in 1952 than in 1951, but about 20 percent higher than the 1941–50 average. The potato crop was 16 percent below average but 8 percent larger than the short crop of 1951.

On the basis of November estimates, meat production in 1952 (beef, veal, lamb and mutton, and pork, excluding lard) was about 3 percent greater than in 1951, and the highest since 1947. Per capita civilian consumption was about 142 pounds, 4 pounds above that in 1951 but

12 pounds below 1947. Cattle slaughter for 1952 was up 7 percent from 1951 and numbers on farms continued upward, indicating a further increase in beef output in 1953 and after.

The upward cycle of cattle on United States farms, which began in 1949 after a 4-year decline, continued in 1952. At the beginning of 1952 cattle and calves on farms were estimated at 11 million more than the 77 million in 1949. It appeared that approximately 5 million more were being added during 1952.

Hog production (number of pigs saved) for 1952 was estimated at about 93 million head, 9 million fewer than in 1951. The sheep and lamb population had fallen from the January 1, 1942, peak of over 56 million head to a record low of 29.8 million on January 1, 1950, and then increased in 1950 and 1951. But the uptrend was halted in 1952, and numbers at the end of the year are likely to be down slightly.

The poultry industry in 1952 set a new record for aggregate output, registering 200 points on the 1935–39 base index, as against 191 in 1951. Production of broilers is estimated about 10 percent above 1951 and a further small rise in broiler production is looked for in 1953. However, egg production is likely to decline in 1953.

Milk production for 1952 is estimated at 114 billion pounds, compared with 115.6 billion pounds in 1951 and the 1945 record of 119.8 billion. Production of milk per cow was slightly less than the 5,326 pounds of 1951, but far above the 1935–39 average of 4,403.

Farm Income and Prices

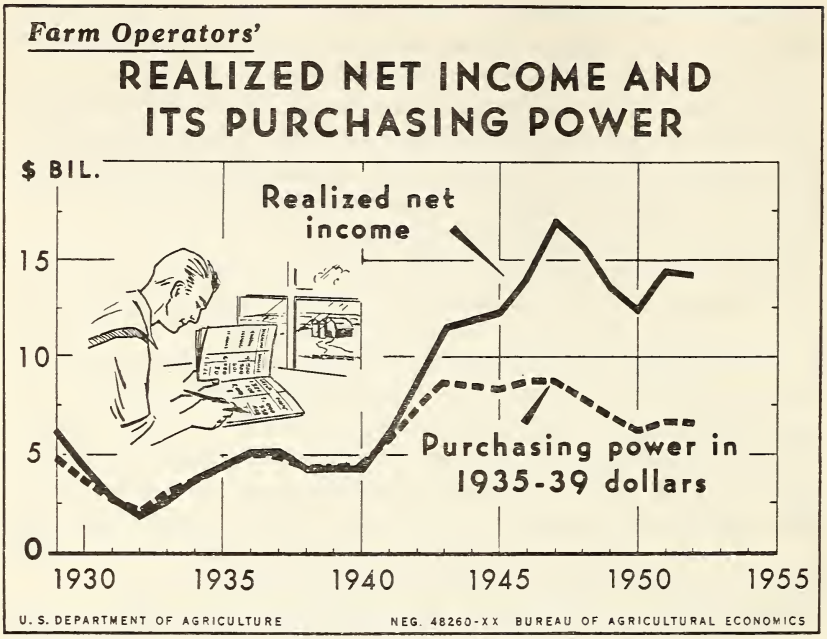
Gross farm income and production expenses were both at record levels in 1952. Farm operators' net income from farming is estimated to be about 14.2 billion dollars, down slightly from 1951, and 2.5 billion lower than the record of 16.8 billion in 1947. The purchasing power of farmers' realized net income in 1952 was a little lower than in 1951, and lower than in any of the previous 10 years except 1950.

Cash receipts from marketings will be about 33.5 billions, 3 percent greater than in 1951.

Gross farm income for 1952—including value of home-consumed farm products, rental value of farm dwellings, and Government payments to farmers, in addition to cash receipts from marketings—may total about 37.6 billion dollars, 2 percent higher than in 1951.

Total expenses of farm production were estimated at 23.4 billions, up nearly 1 billion or 4 percent over 1951. Higher costs of all the important items except purchased livestock and seed accounted for the rise in total expenses.

The index of prices received by farmers on November 15 was 277 (1910–14=100) compared with 301 a year earlier. The all-time high was 313 in February 1951.



From 1947 to 1950, farmers' dollar incomes dropped 26 percent, their purchasing power 29 percent. In 1951, farmers' dollar incomes recovered almost half of their previous drop. But because of further increases in prices paid for items used in family living, farmers' purchasing power in 1951 regained less than a sixth of its previous decline. These prices in 1952 are at a new all-time high, and farmers' purchasing power is not only less than it was in 1951 but lower than in any of the previous 10 years except 1950.

The index of prices farmers paid, including interest, taxes, and wages stood at 281 (1910–14=100) on November 15, compared with 284 a year earlier. For the year farm prices averaged about 2 percent above parity, compared with 7 percent above parity in 1951.

Food Consumption

Food utilization in 1952 was about 42 percent larger than in the prewar period, 1935–39.

Per capita civilian consumption of food was about 12 percent larger than in 1935–39. Consumption of beef, veal, lamb, poultry and eggs, fluid milk and cream increased during 1952, but per capita consumption of fruits, pork, sugar, and vegetables decreased.

Per capita supplies of most of the major foods available to civilians in 1952 will probably average about the same as they have during the last three years.

The peak year for per capita food consumption was 1946, when the index reached 119, based on the 1935–1939 average as 100. In 1947 the index declined to 115 percent. In 1948 it fell to 111 and remained at about this level in 1949 and 1950.

The Balance Sheet

Although physical assets of American agriculture were 10 percent larger in dollar value on January 1, 1952, than a year earlier, they were only 2 percent higher in terms of 1940 prices. Total assets were valued at $169 billion, a new record. Farm real estate was valued at $94.6 billion, non-real estate was valued at $51.5 billion, and financial assets at $22.9 billion, all higher than a year earlier. Farm indebtedness totaled $14.1 billion, also higher than the preceding year. Proprietors' equities were at a new record level of $155 billion, an increase of 9 percent for the year.

Farm real estate value rose sharply after the outbreak of the Korean conflict in June 1950. On July 1, 1952, the index of average value per acre of farm real estate was 213 (1912–14 base), 24 percent above July 1, 1950. There is evidence that land values are now leveling off. No sharp increase in these values is looked for in 1953.

Agricultural Employment

The total number of persons working on farms, January–October 1952, averaged about 10,227,000, compared with 10,487,000 for the same period in 1951 and 11,482,000 for the 1945–49 average. About one person out of four so employed was a hired worker, the others being farm operators and unpaid members of farm families.

Cash farm wage rates which had risen steadily since 1940, declined in 1949, but advanced again during 1950, 1951, and 1952. In October 1952, hourly wages for farm labor without room and board averaged 76 cents, compared with 73 cents a year earlier.

THE FARM PROGRAMS

The relatively strong position of our agriculture in 1952 is due in large part to the sucessful operation of the national farm programs. Price supports, for example, have helped prevent anything like the disastrous collapse of farm prices that occurred after World War I, when farm prices fell more than 50 percent from June 1920 to June 1921.

Research, electrification, credit, conservation, and other programs have also played important roles in bringing about increased farm productivity, improved living, and a sounder agricultural structure.

The preservation and further development of effective farm programs is of vital concern not only to farmers but to the entire Nation.

The challenge now facing us is great. But we must look far beyond the present and consider our national requirements for the future. The Nation must make sure that it will have the means to produce food and fiber adequate to the needs of a rapidly growing population.

In 1880 our population numbered about 50 million, and we had 188 million acres of cropland available to provide food and fiber. Since 1880 our population has more than tripled, while our available cropland, and its equivalent in grazing land, has increased about 2½ times. Yet today the average American unquestionably has a more varied and better diet than his grandparents had 70 years ago. How was this improvement brought about?

From 1880 up to about 1920, food and fiber for our growing numbers were provided principally by bringing new cropland into use. Between 1920 and the early 1930's, output of food for human consumption was increased largely by the release of millions of acres from the production of feed for horses and mules.

Prior to the 1930's there was comparatively little improvement in yields per acre or per animal. In fact, during the droughts and hard times of the early and middle 1930's, production per acre declined sharply and production per animal unit also fell off. Since the middle thirties, however, production per acre and per animal have both leaped spectacularly, due in great part to improved technology on farms, which in turn was made possible largely by the national farm programs and the cumulative progress of scientific research.

These facts indicate not only the great value of effective farm programs but the great need for them in the present and future.

In 1950 the Nation had available to produce for human consumption 462 million acres of cropland or its equivalent in grazing land. Our population in 1950 was about 152 million.

By 1975 the Nation's population may well be about 190 million, or one-fourth more than in 1950. To provide for this increased population the dietary levels we are now enjoying, at present rates of productivity per acre, would require about 577 million acres of cropland equivalent. This is 115 million more acres than we now have available.

The question is, therefore: What are our chances for increasing crop acreage 115 million acres by 1975?

It now appears that up to 45 million acres of additional land may be available to produce food and fiber for human consumption as the result of increased irrigation, land reclamation, and additional releases of land from nonfood uses. This, however, would still leave a net deficit of some 70 million acres.

Lest there be misunderstanding, it should be emphasized that these calculations relating to diet levels and acreages do not by any means indicate that there is any likelihood that people in this country will starve or go hungry. By changing over to a diet containing fewer livestock products, we could feed a far larger population than we expect to have by 1975. Or if cost was no object, we might bring into cultivation a great many acres which, under present conditions of food supply and demand, cannot be farmed economically.

It is not, therefore, a question of our being hard pressed for actual quantities of food, but rather of maintaining and improving the diet level at reasonable prices to consumers, without calling into use land that under present conditions cannot be cultivated economically or wisely.

How, then, are we to make up for this deficit of 70 million acres that we may anticipate will be needed by 1975?

The obvious answer is that we must further increase yields per acre and per animal, continuing in this respect the progress of the past decade and a half. We must build new strength in our land. We must eliminate waste of food and fiber and improve their distribution.

These are the ultimate objectives toward which our national farm programs are aimed.

Price Supports

It is apparent that future high-level agricultural production will depend to a greater extent than ever before upon stable farm incomes. Farm machinery, pesticides, improved varieties of seed, and other technological advances have increased the production level. But these improvements in production techniques also have added greatly to farmers' costs.

The production level in 1952 was about 72 percent higher than in the 1910–14 period. Over the same period, however, production expenses rose—in terms of 1910–14 dollars—from $3,805,000,000 to $7,750,000,000, or 104 percent above the 1910–14 level.

The day when farmers could produce their own power, grow their own "fuel" and otherwise operate on a self-sufficient basis, has almost ended.

Today's farmers need, each year, 7 million tons of finished steel—more than is used for a year's output of passenger cars.

They need, each year, 50 million tons of chemical materials—five times as much as farmers used in 1935.

They need 16½ billion gallons of crude petroleum—more petroleum for power than is used by any other industry.

They need 320 million pounds of raw rubber—enough to put rubber tires on 6 million automobiles.

They need 15 billion kwh of electrical power—enough power to supply Chicago, Detroit, Baltimore, and Houston.

In the years ahead farmers will depend more and more upon the nonfarm industries for the goods and services required to keep production high. This dependence calls for a heavy outlay of cash every year. If the income position of farmers is weakened an eventual drop-off in production is almost certain to follow.

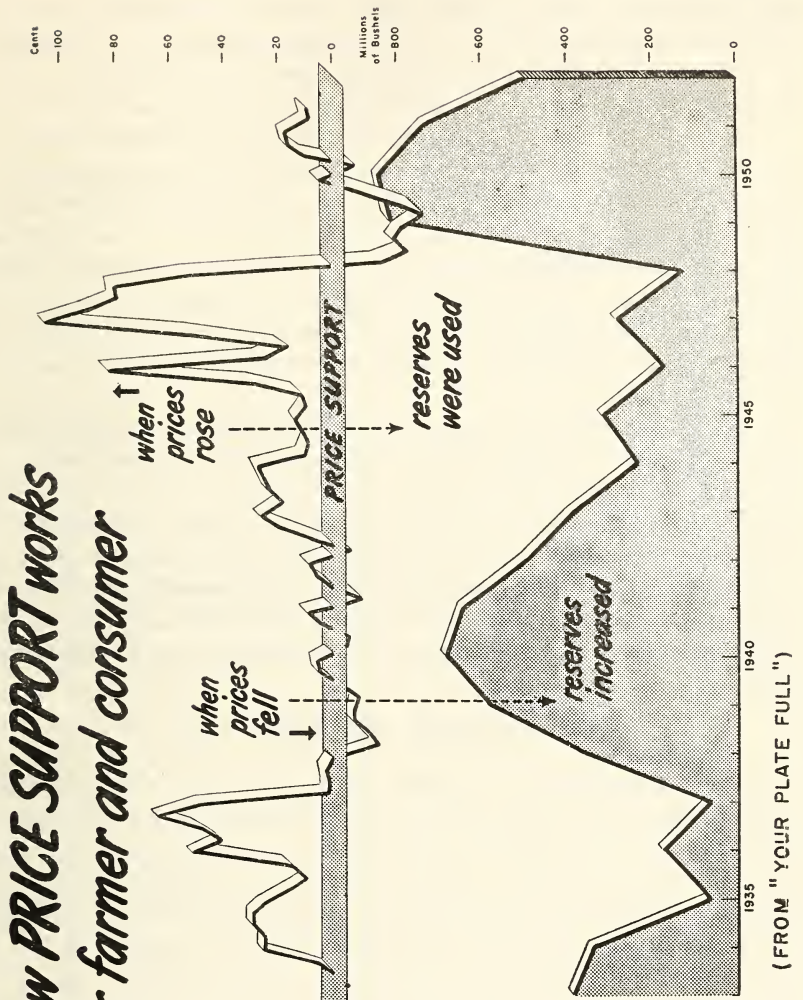
Aside from this fundamental relationship between farm income and agricultural output, price support has a psychological effect on the production efforts of farmers. Experience during and since World War II has proved definitely that price supports, by assuring farmers that they will not receive less than certain minimums for a number of important commodities, encourage abundant production. Although many factors have contributed to the high-level agricultural production of recent years, price support is certainly not the least.

Under existing price legislation, support is mandatory for wheat, corn, cotton, peanuts, rice, tobacco, milk, butterfat, wool, mohair, honey, and tung nuts. In the fiscal year ended June 30, 1952, barley, oats, rye, sorghum grain, flaxseed, soybeans, dry edible beans, American-Egyptian cotton, cottonseed, olive oil, crude pine gum, hay and pasture seeds, and winter cover crop seeds were also supported under permissive provisions of the price law.

Prices received by farmers in fiscal 1952 averaged 102 percent of parity for all commodities as a group, compared with 107 percent in fiscal 1951. Despite this slightly less favorable price situation, there was only a slight change from the previous year in the amount of price support extended to farmers. Support extended on 1951 crops totaled approximately $1,061,000,000, as compared with $1,163,000,000 on 1950 production ("support extended" refers to total loans made, purchase agreements signed, and actual purchases, with no adjustment for loans repaid or for commodities not delivered under purchase agreements).

Support extended for some of the major 1951-produced commodities through June 30, 1952, was as follows: Wheat, 212.9 million bushels, $442,000,000; cotton, 1.1 million bales, $172,000,000; tobacco, 237.2 million pounds, $127,000,000; farmers' stock peanuts, 774.2 million pounds, $74,000,000; shelled peanuts, 11 million pounds, $900,000; corn, 26.3 million bushels, $42,000,000; rice, 5.8 million hundredweight, $30,000,000; and soybeans, 11.1 million bushels, $27,000,000.

Net realized losses on the price support program—the best measure of support costs—amounted to $67,000,000, as compared with $346,000,000 in 1951, $249,000,000 in 1950, $255,000,000 in 1949,


how PRICE SUPPORT works for farmer and consumer
Cents
100
80
60
40
20
0
Millions of Bushels
800
600
400
200
0
when prices rose
when prices fell
PRICE SUPPORT
reserves were used
reserves increased
1935
1940
1945
1950
(FROM "YOUR PLATE FULL")

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and an annual average realized loss of about $56,000,000 for the entire period since price support was started in October 1933.

The largest loss, $29,000,000, was incurred on liquidation of inventories of dried eggs acquired prior to the fiscal year 1952. (Prices of eggs have not been supported since December 31, 1950.) Other losses included those on dry edible beans, $15,000,000; peanuts, $9,000,000; wheat, $8,000,000; and flaxseed and linseed oil, $5,000,000.

As of June 30, 1952, the Commodity Credit Coporation had established valuation reserves of $114,000,000 against loans and inventories to reflect the estimated loss on ultimate disposition of the price support commodities already in inventory or to be acquired under loan operations. These reserves were based on estimated realizable values as influenced by current market prospects and other known factors. The 1952 total reflects a decrease in valuation reserves of about $42,000,000 from reserves of $156,000,000 as of June 30, 1951, due in part to improved market conditions for some commodities and to the disposal of large quantities of other commodities for which reserves were maintained.

In last year's report, I mentioned that despite its over-all success, there are grave weaknesses in the national price support program. The same comment must be made in this report. No satisfactory means has as yet been provided for applying supports to nonstorable commodities—a means which would make perishables available to consumers at prevailing market prices, would benefit producers by working more directly for their interest, and would benefit the Nation by permitting full consumption of perishables in large-production years.

Conservation and Land Use

The record production of recent years has placed a heavy burden on the Nation's farm acres. The needs of our era have made it necessary for farmers in the Midwest and South to maintain larger acreages of corn, cotton and other clean-cultivated, soil-depleting crops, and acreages of wheat in the Great Plains much larger than soil scientists would recommend, from the standpoint of good farming or of the best-adapted soil conservation rotations. Our agriculture has maintained crop acreages and farming patterns which create serious hazards, particularly in the event of either drought or excessive rainfall.

The original Soil Erosion Service was established in 1933. Since that time the Nation has made significant advances in soil and water conservation. The Soil Conservation Service and the Agricultural Conservation Program of the Production and Marketing Administration have carried conservation service directly to farmers in every State in the Nation.

Although farmers today are doing a far better job of conserving and building strength in the land than they were doing a decade or two ago, the fact remains that they must carry out still *more* conservation work in order to stop and reverse the declining trend in soil productivity.

A number of practical steps initiated in 1951 for facilitating conservation planning and application showed gratifying results that could be definitely measured in 1952. These conservation program improvements served to increase immediate production and, at the same time, build strength in the land for the future.

The operation of Memorandum No. 1278, of February 1951 (discussed in last year's report), resulted in the adoption of more permanent-type conservation practices on the land in the fiscal 1952 than in any previous year, and in more farmers starting their basic conservation plans. Memorandum 1278 provided for closer coordination of the Department's conservation activities, particularly the technical assistance program of the Soil Conservation Service and the financial assistance of the Agricultural Conservation Program.

The "progressive planning" system developed by the Soil Conservation Service in 1951 was responsible in part for the fact that all previous records in conservation planning, and the application of soil and water conservation practices were surpassed. All needed conservation measures and land-use adjustments were completed on more than 27 million acres, with Soil Conservation Service assistance.

Grassland farming—fundamental to any farm conservation program—spread over millions of additional acres. Special emphasis was given to grassland agriculture by the Department in cooperation with the land-grant colleges and universities. More extensive use of grass and legume crops, in rotations and as improved pasture, is helping substantially to meet the country's ever-increasing demands for meat, dairy, and other livestock products without exploiting our productive cropland.

Increased cooperation and coordination of effort were apparent among the personnel of the Department in the programs concerned with conservation. The consolidation of Department field offices during the year under Memorandum 1278 brought conservation and other agency employees into closer and more effective teamwork than ever before, both among themselves and among farmers they serve.

More than 2,400 farmer-organized and farmer-managed soil conservation districts received technical assistance from the Soil Conservation Service and educational services of the State Extension Services, which carried on educational work on soil and water conservation in 2,986 counties.

The Soil Conservation Service and the Division of Soil Surveys of the Bureau of Plant Industry, Soils, and Agricultural Engineering undertook the development of procedures under which the Department will make only one type of soil survey—one that will be suitable for all conservation work and other uses.

Soil Conservation Service technicians, through improved procedures, helped more than 250,000 farmers and rachers cooperating with soil conservation districts to start conservation plans involving approximately 77 million acres. This was almost double the number the Service had been able to help on conservation planning in any previous fiscal year. Besides this record assistance to farmers in conservation planning, SCS technicians gave technical aid in applying or maintaining conservation practices to about 700,000 farmers and ranchers who were active district cooperators and, in addition, aid on permanent-type conservation practices to 217,000 ACP participants who were not district cooperators.

Assistance was given to half a million ACP farmers altogether, some 221,000 of whom already were cooperating with soil conservation districts and another 72,000 of whom became district cooperators during the year. As of June 30, 1952, about one farmer out of every five in the Nation was cooperating with the districts (approximately 1,120,000 active district cooperators). These farmers operated more than 322 million acres which have either been treated already or are now in the process of receiving full and permanent conservation treatment. This is more than one-fourth of all the farm and ranch land of the country.

The 2,467 soil conservation districts in operation, under State enabling laws, at the close of the fiscal year covered approximately 1,359,000,000 acres in the United States, its territories, and possessions. They included nearly 5 million farms and ranches containing almost 900 million acres. The districts now cover about four-fifths of the Nation's farm land and almost six-sevenths of its farms.

The ACP took a major step in 1952 to increase the effectiveness of its conservation efforts. In one county in each State the farmer-elected Production and Marketing Administration community committeemen visited each farm in their locality. Special training schools preparatory to the farm visits armed the community committeemen with the latest development and techniques recommended by Soil Conservation Service technicians and representatives of Extension, research, Forest Service, and other Federal and State agencies.

The purpose of such a visit was to help each farmer to make the most effective use of the technical aid available to him and to use Agricultural Conservation Program practices and financial aid to best advantage in meeting the conservation needs of his farm. Major emphasis was on practices of a lasting nature and those requiring

financial assistance to assure the desired results. This necessarily left a smaller allowance for assistance for practices of a frequently recurring nature which have become incorporated into accepted farming operations.

This centralized and coordinated effort geared to the needs of individual farms was possible because of the accumulated experience resulting from nearly 20 years of program operations. It is backed by the results of accelerated soil research on conservation and the technical progress made in recent years.

It was tried out in 1952 in 50 counties, at least one county in each State, in preparation for Nation-wide operation in 1953. In the 50 counties with a total of 80,000 farms, nearly 55,000 farmers developed conservation programs for their farms and requested assistance for specific practices. In these counties a total of 38,095 participated in the program in 1951.

The shift to more enduring practices in these counties was pronounced. In 1951 about 22 cents of each ACP dollar was used for the durable (construction) type practices. The 1952 approvals for such practices represented 27 cents of each ACP dollar, an increase of 24 percent. Comparable figures for term practices, those lasting 4 to 10 years, were about the same for each year and the figures for annual practices showed a 25 percent decrease. Practice requests indicate that more than 80 percent of the 1952 practices are of the basic or enduring type and less than 20 percent of the annual recurring kind.

The increased responsibilties of farmer committeemen and the practice of concentrating technical and financial assistance on the primary conservation needs of individual farms, are getting results.

ACP operations in all agricultural counties reflect the efforts to integrate Department services in States and counties.

Figures for some of the major practices carried on in 1951, which may well serve as a cornerstone from which to measure future progress resulting from the new farm-to-farm procedure and the joint efforts of the Department agencies, are as follows:

Twenty-one million acres planted to protective cover and green manure crops.

Seven million acres of pasture seeded.

Six million acres of grazing land placed under approved management systems.

Three million three hundred thousand rods of fences erected to permit grass protective grazing.

Eight million rods of fireguards and firebreaks established to protect grazing land and woodlots.

Seventy thousand stockwater dams, reservoirs, wells, springs, and seeps constructed and developed to protect and utilize grass by a better distribution of grazing.

One hundred thirteen thousand acres of trees planted to protect land.

Three hundred million linear feet of terraces constructed, 43,000 acres of sod waterways established, and 11,000,000 acres of crops grown on contour or in strips to protect soil from water erosion.

Twelve million acres of protected summer fallow and crop residue used to protect 3,000,000 acres of soil from wind erosion.

Two million four hundred thousand acres drained by open ditches and enclosed drains.

Eight hundred thousand rods of ditches and dikes; 2,000 small dams; 470,000 rods of siphons, pipes, and culverts installed; and 327,000 acres levelled for more efficient use of irrigation water and also to protect soil.

To assure the desired results from the various soil protecting, conserving, and improving practices, 21,500,000 tons of lime, 3,000,000 tons of phosphate, and nearly 500,000 tons of potash were used. All practices were carried out as specified by Federal and State technical agencies.

Forest Resources

Another vital conservation agency of the Department is the Forest Service, which has the task of promoting the wise use of the Nation's forest and related watershed lands.

The Department's forestry program involves action along three main lines: Administration of the national forests; cooperation with the States and with private land owners in the protection and sound management of forest resources; and research, looking to the development of new knowledge as a basis for more efficient management, protection, and utilization of our timber, range, and water resources. During the past year, the Forest Service made good progress in all these phases of the work.

The national forests, comprising some 181 million acres in 40 States, Alaska, and Puerto Rico, are managed for the development and maintenance of their resources for public use and service. During fiscal year 1952, the harvest of timber from these national forests yielded a total of 4.4 billion board feet. This volume was exceeded only by the 4.7 billion feet cut in the preceding fiscal year, 1951.

The Forest Service manages the timber in the national forests for a sustained yield. This output can be increased substantially as soon as the additional mileage of roads needed for proper management of the timber is provided. With the construction of the main-line log-haul roads needed to open up large stands of commercial timber now inaccessible, it is estimated that a sustained yield of 6.6 billion board feet a year can be obtained. Eventually, with continued building up

of the growing stock and with more intensive management, the yearly output of timber from the national forests can be still further increased.

An outbreak of the Engelmann spruce beetle in 1952 threatened to become one of the worst insect epidemics ever to occur in the northern Rocky Mountain region. The epidemic occurred after violent windstorms blew down much timber, providing conditions favorable for a rapid build-up of the beetles.

Control operations against the Engelmann spruce beetle epidemic in Colorado during the last 3 years appear to have been effective, and it is expected that only mop-up treatment will be necessary in 1953. Several years of control work against widespread infestations of the spruce budworm in the Pacific Northwest also appear successful. This project was conducted cooperatively by the Department of Agriculture, State agencies, and private forest owners.

The national forests contain large areas suitable for grazing, especially in the Western States. The Department's program looks to management of the national forest ranges so that they may contribute permanently to the Nation's livestock production. Some of the range areas have deteriorated as a result of overuse in the past. On these areas the Forest Service is endeavoring to build up the forage and watershed values through reseeding, adjustments in grazing use, and other measures. Maintenance of range productivity is sought through continued careful management of the grazing use.

Public use of the national forests for recreation increases each year. The number of visits in 1951 represented a 66 percent increase over that of 1941, the highest year of prewar use. In 1951 the national forests were visited by 30 million campers, picnickers, fishermen, hunters, winter sports enthusiasts, and others seeking enjoyment of the outdoors. The number of visitors in 1952 is expected to exceed the 1951 figure by a million or more. Improvement and expansion of the national forest recreation facilities are badly needed. Many of the recreation areas are seriously overcrowded during the vacation season. Problems of sanitation and deterioration of facilities are acute. Upkeep and operation of these areas become more and more difficult as the pressure of expanding use continues.

The mineral resources of the national forests are open to development and exploitation, to help meet the Nation's requirements for mineral products. The mining laws, however, have been widely abused. Thousands of mining claims are filed on national forest lands each year which quite obviously are for purposes other than mining. Many mining claims are filed on lands where timber, recreation, and watershed values far outweigh the mineral values involved. The interests of the legitimate miner should be protected,

but there should also be more adequate provision for protection of other valuable public resources and for prevention of abuses.

In most regions the most important national forest resource is water. Protection of watershed values is therefore necessary in the management of all timber, range, recreation, and wildlife resources. Many areas, however, require additional special treatments to remedy deteriorated watershed conditions resulting from forest fires, past overgrazing, or other causes of damage.

The Forest Service cooperates with State agencies in providing technical assistance to woodland owners and to operators of small sawmills and other processors of primary forest products. During fiscal year 1952, approximately 240 project foresters in 38 cooperating States assisted 27,933 woodland owners in establishing improved management practices on 2,501,317 acres of woodland. At the end of the year more than 4,600 requests for service remained unfilled. Numerous project areas are still too big to be adequately covered by the foresters assigned to them, and large areas in several States as yet have no such service at all.

The Forest Service also cooperates with State forestry agencies in the production and distribution of trees for forest planting or for establishment of windbrakes and shelter belts. Nearly 300 million trees were distributed in fiscal 1952 under this cooperative program. The total is small, however, when measured against the millions of acres of denuded or understocked forest lands in the United States that need to be reforested.

Organized protection against fires is provided for State and private forest lands through Federal-State cooperative programs in 43 States and one Territory (Hawaii). Although this cooperative protection covered approximately 363 million acres, some 63 million acres of State and private forest and watershed land still remained without such organized protection from fire. A major part of the total acreage burned over in the United States each year is on this unprotected area.

The research program of the Forest Service is carried on at 11 regional experiment stations in the continental United States, at a research center in Alaska, a tropical forestry station in Puerto Rico, and at the Forest Products Laboratory in Madison, Wis. Each of the regional stations maintains several branch centers and experimental forests and ranges, where much of the research work is done.

The research work is strengthened and expanded in many cases by the cooperation of other Federal, State, and private agencies and individuals. During the past year, a National Advisory Committee on Forest Research was established. Set up under terms of the Agricultural Marketing Act of 1946, which authorized establishment of such advisory committees, this group will study the forest research

program of the Department of Agriculture, review and advise on research now in progress, and recommend further work.

Basically, the Department of Agriculture forestry program calls for building up and maintaining the forest resources of the United States for maximum, permanent contribution to the national economy. Since timber growing is a long-term enterprise, the forestry program must look far ahead. It must take into consideration not only the Nation's current requirements but also its future needs. It must aim at keeping the Nation's forests continuously and permanently productive.

River Basin Programs

As pointed out in previous reports a major goal of the Department of Agriculture is to develop comprehensive, multiple-purpose, and coordinated agricultural plans for the Nation's great river basins or other appropriate regions. These plans are designed to unify and make more effective all of the Department's programs having to do with the conservation, development, and utilization of land and water resources in these regions. They provide for the conservation and improvement of the soil resources, the protection and improvement of forests, the reduction of flood and sediment damages, the more efficient use of land through irrigation and drainage, the protection of the water resource, the enhancement of recreation, fish and wildlife resources, and, of course, the efficient production of foods and fibers in amounts adequate to meet the Nation's growing needs. It is also the desire and the intent of the Department to coordinate these plans with those of other agencies—Federal, State, and local.

Considerable progress has been made toward attainment of this goal.

As previously reported, a comprehensive plan for the Missouri River Basin has been completed and submitted to the Congress for approval. The over-all plan is set out in House Document No. 373, 81st Congress, 1st Session, under the title "Missouri River Basin Agricultural Program." During the past year supplements to this document have been submitted and published as House Document No. 530, 82d Congress, 2d Session. They contain more detailed plans for the watersheds of the Osage River in Missouri and Kansas, the Upper South Platte River in Colorado, the Blue River in Nebraska and Kansas, Salt and Wahoo Creeks in Nebraska, and Five Mile Creek in Wyoming.

Under preparation is an over-all plan for the Columbia River Basin. As in the Missouri Basin, this plan is being prepared by joint and coordinated action of the nine agencies of the Department responsible for activities that would be integrated, in whole or in part, into the comprehensive plan.

In the region including the Arkansas, White, and Red River Basins the Department has joined with other agencies of the Federal Government, and with the States, in the formulation of the most comprehensive plan for resource development, use, and conservation that the Nation has so far undertaken. This planning effort was authorized by the Flood Control Act of 1950. It is being carried out by an inter-agency committee made up of representatives of the Corps of Engineers, the Department of the Interior, the Department of Commerce, the Federal Power Commission, the Federal Security Agency, the Department of Agriculture, and the States of the region. The representative of the Corps of Engineers serves as chairman of this planning team.

A similar cooperative effort is underway in the New England-New York region. Here, too, the Department is a member of the team of Federal and State agencies.

Initiation of work on an agricultural plan to complement and support the Department of the Interior's plan for the Colorado River Basin was forecast in last year's report. Lack of funds and personnel have made it necessary to defer this undertaking.

The Department has continued to cooperate in the review of the recommendations of the Water Resources Policy Commission under the leadership of the Bureau of the Budget. It is expected that these thoroughgoing and objective studies will bring about major improvements in present public policies.

It is significant that the Water Resources Policy Commission has urged the development of comprehensive, multiple-purpose, and coordinated programs for the Nation's major river basins, or other regions. Reviews of the Commission's recommendations, both inside and outside the Executive Branch, indicate that there is widespread approval of this procedure, which supports the consistent policy the Department has followed in fitting its activities into broad and unified regional plans.

Research

In my report last year, I pointed out that the man with the microscope and test tube is responsible for much of the "miracle" of present-day farm production. Compared with 40 years ago, a man-hour of farm labor now produces three times as much food grains, twice as much feed grains, three-quarters more fruit and tree nuts, and about half again as much truck crops, cotton, milk, and poultry products. In general, a man-hour of farm labor in 1952 produced nearly 2⅓ times as much farm output as it did in 1910.

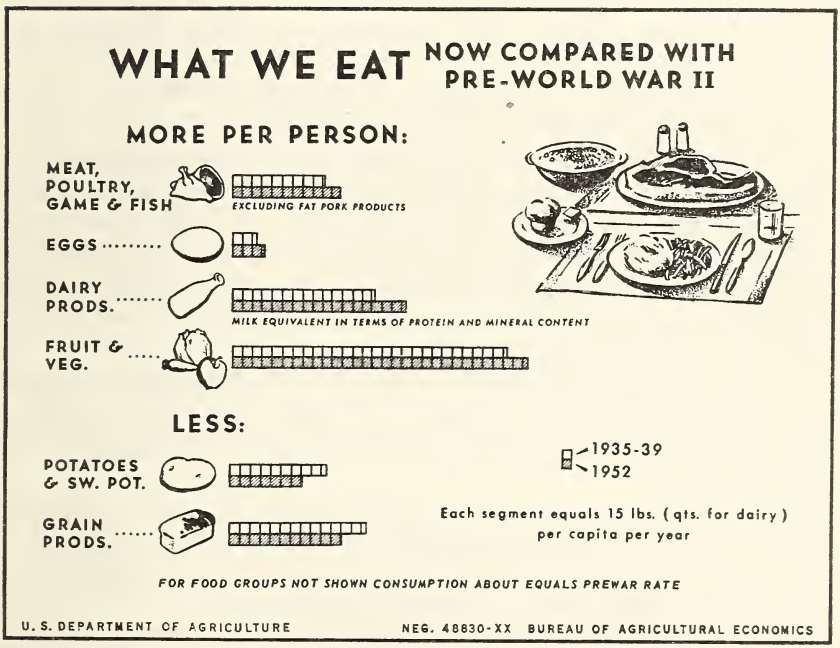
Our living standards today require the production every year of almost 3 tons of food, fiber, and other products of the land for each

person in the United States. Of this total, food constitutes about 1,600 pounds. Fiber for clothing, pulpwood for paper, and similar materials make up about 4,100 pounds.

Moreover, demand for agricultural products is growing. Not only is our population increasing, but there has been a rise in the per capita consumption of food and fiber, especially in the consumption of fruits, vegetables, dairy products, eggs, and meat. We have met these increased demands, even though in recent decades there has been very little expansion in cropland.

When we study the production gains made during the past decade and a half, we must keep in mind that they were made possible in part by hybrid corn, by nearly tripling the quantity of fertilizer used, by DDT and other new insecticides, by new disease-resistant crop varieties, by mechanization, electricity, and more soil conservation. We must realize also that as efficiency approaches high levels, it becomes increasingly difficult to raise these levels still higher. It will not be simple, for example, to increase corn yields again as much as they were increased by the development of hybrid corn.

To get the increased production needed in the future, we shall have to eliminate many of the ravages of insects and diseases. We are now


WHAT WE EAT NOW COMPARED WITH PRE-WORLD WAR II
MORE PER PERSON:
MEAT, POULTRY, GAME & FISH
EXCLUDING FAT PORK PRODUCTS
EGGS
DAIRY PRODS.
MILK EQUIVALENT IN TERMS OF PROTEIN AND MINERAL CONTENT
FRUIT & VEG.
LESS:
POTATOES & SW. POT.
GRAIN PRODS.
1935-39
1952
Each segment equals 15 lbs. (qts. for dairy) per capita per year
FOR FOOD GROUPS NOT SHOWN CONSUMPTION ABOUT EQUALS PREWAR RATE
U. S. DEPARTMENT OF AGRICULTURE
NEG. 48830-XX BUREAU OF AGRICULTURAL ECONOMICS

People of this country now have much better diets, on the average, than before World War II. Important factors underlying this improvement are the high level of civilian employment and incomes, together with the record level of food production. Prospects for the year ahead point to a rate of civilian consumption per person at least as large as in 1952.

losing 10 percent of all farm animals from diseases and parasites. Brucellosis alone is cutting our milk supply by a billion pounds a year. Insects cost United States farmers 4 billion dollars' worth of crops and livestock every year, and plant diseases threaten several of our major crops.

We shall also have to do a lot more in the fields of soil conservation and soil improvement, as I indicated earlier.

We shall need to make better use of fertilizers. Farmers are investing more than 1 billion dollars a year for plant nutrients to achieve the present production. But we have yet to realize the full potentials of fertilizer use. Science must produce much more basic information on mineral nutrition. We need to learn, for example, how a stepped-up application of one plant food affects the balance of other plant foods.

We must utilize pastures and harvested forages which can be made to yield large supplies of essential feed nutrients and to do it at relatively low cost. Research is helping to improve grasslands, and we are learning that improved grass fields can produce as much feed as cornfields, and with less work and lower cost.

Most of the increase in milk production in the last 15 years is attributed to an increase in grain feeding. The increase in the next 25 years in large measure must come from an increase in forage and pasture feeding.

We must develop better varieties of crop plants. We need better control of weeds and brush that decrease production.

To do these things we must have adequate research programs and adequate research facilities. The work recently done in weed control shows the big dividends research can produce. In Ohio, a corn field treated chemically to control weeds produced 111 bushels to the acre. A similar plot with weeds uncontrolled produced 87 bushels. In another experiment it was shown that weeds cut yields from 80 bushels down to 39, a loss of more than half the crop.

In South Carolina, land that produced only 9 bushels with weeds unchecked, produced 33 bushels per acre, when weeds were controlled with 2,4–D. Moreover, the cost of weed control is cut sharply by the use of chemicals.

In the nearly 8 years since 2,4–D came into commercial use and the 5 years since 2,4,5–T became available, farmers have used these chemicals on millions of acres. On some range lands it has been found that weed control can boost beef production by 50 percent.

And we have only begun to exploit the possibilities. We need more research, more information, better and faster application of the new techniques in farming.

Research is showing how to step up meat supplies through breeding faster growing animals and getting more meat per pound of feed.

New meat-type hogs produce more choice cuts than the average hog. Recent experiments indicate the possibility of increasing by 50 percent the daily gain in weight of cattle in the feed lot. Ten years ago a 3-pound broiler could be produced on 12 pounds of feed in 12 weeks. Today, 9 pounds of feed will bring the same results in 10 weeks. In fact, without the research of the past few decades the commercial broiler industry which now produces about half the country's chicken meat would never have come into being.

Besides increasing production, we need to find ways to improve the marketing, distribution, and use of farm products. Up to 30 percent of some of our fresh fruits and vegetables are lost between the farm and the consumer through spoilage. A study made a few years ago in 13 States showed that one-third of the eggs marketed had dropped below A quality by the time they reached the first buyer and the figure had increased to nearly a half by the time they reached the assembly point. We are seeking methods of storage and handling that will reduce or eliminate these terrific losses that occur both on the farm and during marketing.

We need to find food uses for the many products and byproducts that are now wasted or used for purposes other than food. A good example is the 1.6 billion pounds of skim milk that is not now being used for human food.

Marketing research in the last few years has given us many clues on how to cut down losses between the farm and consumers, and we feel certain that it can help us a great deal more in the future.

Agricultural research obviously pays big dividends, whether it is preventive research or research designed to increase production. But agricultural research is falling behind with respect to its comparative position with industry. In 1942, six industrial chemical companies employed about the same number of research workers as were employed by the Department. By 1950, however, these six companies were employing one and a half times as many research workers as the Department and the gap is widening month by month.

It is of vast importance to the Nation that agricultural research be expanded and maintained at a level adequate to the challenge before us. The utmost cooperation is needed among the various groups interested in agricultural research.

There has been effective teamwork, for example, between the Department and the land-grant colleges and universities. They have cooperated in the grassland program, in a new program to promote effective use of lime and fertilizers, and in several important studies.

The land-grant college system has had much to do with the development of the American agriculture of today. But the colleges have, if anything, an even more important role to play in the future. They have a part to play in the formation of national agricultural policy.

They carry a large share of the total burden of agricultural research and they perform a vital function in the task of carrying information about new methods and discoveries to the farmer through agricultural extension.

Investments in Better Rural Living

A multitude of factors are responsible for improvement in standards of living in this country, whether among farm or city families. Larger incomes, electric power, and credit are three of the prime factors responsible for the rising standard of farm living since the 1930's. But "know-how" in farm and home management has also been a prime factor in improving family living. The Extension Service and similar agencies have played predominant roles in the dissemination of information on farm and home management.

In 1952 the Cooperative Extension Service continued to take science to rural people and to demonstrate how to use the results of scientific research in everyday farming and homemaking. Operating on the principle of "learning-to-do-by-doing," the Extension Service has continued to help men, women, and youth throughout rural America, and in cities and towns as well, to do better in farming, homemaking, and in carrying on community activities.

The 12,500 Cooperative Extension Service workers helped farm families to produce more efficiently and abundantly, to make their fields more fertile, and their homes more comfortable. As a result, 6.7 million families followed improved methods in agriculture, in homemaking, and in conducting community living activities in 1951, the latest year for which statistics are available. Of this number, nearly 4.5 million, or 67.1 percent, were farm families and almost 2.2 million were nonfarm families. In their job as extension representatives, county extension agents made an estimated 20 million personal contacts during the year with people they were trying to help. They held nearly 2½ million meetings, which drew a record-breaking total attendance of more than 75 million persons. Working with the Extension Service were 1,173,855 local, volunteer, unpaid leaders—men, women, and youth—who, under the guidance of county extension agents, helped to lead the program in local areas.

County extension agents influenced an estimated 4.6 million families to change one agricultural practice or more, during the year. They assisted half a million farmers in grassland improvements, such as obtaining improved varieties or strains of seeds. More than 100,000 farmers were helped in selecting new farm equipment to meet their changing needs; more than 200,000 in the efficient use of mechanical equipment. A nearly equal number of farmers were instructed in the maintenance, adjustment, and repair of farm tractors and other mechanical equipment.

During the year Extension's 3,700 county home demonstration agents, aided by other extension workers and volunteers, influenced nearly 3⅓ million families to make improvements in homemaking and family life. More than a million women were aided in the problems of clothing construction, and nearly a million were helped with clothing selection problems. More than 1½ million homemakers were assisted in preserving food for their families. By the end of the year, there were 62,746 active home demonstration clubs with more than 1.4 million members.

Work with young people continued to increase. By the year's end slightly more than 2 million boys and girls were enrolled in 4–H Clubs, an increase of 1 percent over the preceding year. 4–H Club members raised more than 600,000 acres of garden and other food crops; more than a million head of livestock, including dairy cattle, sheep, beef cattle, and hogs; upward of 9 million chickens, turkeys, and other fowls. An additional 300,000 young men and women, most of whom were enrolled in groups sponsored by organizations other than Extension, received educational assistance in fields relating to farming, homemaking, and citizenship.

As the field educational arm of the U. S. Department of Agriculture and the State land-grant colleges, Extension assisted other USDA bureaus and agencies as well as various Federal Government departments and bureaus in conducting national programs for rural people.

Rural Electrification and Telephone Service

Adequate electric power is as necessary to efficient farming today as it is to industry, because of what it can do to help in the production and preservation of many farm products and in saving labor.

The REA program during 1952 made continued progress in the field of rural electrification. There was a sharp stepping up of activity in the field of rural telephone service, and a major staff reorganization was made to strengthen both of these rural programs.

The national emergency has made improvement in the deplorable rural communications situation imperative. Increased production goals have made farm telephone service a necessity if the farmer is to get more products to market. The farmer has the same need for rapid communication with marketing and supply centers that the urban businessman has.

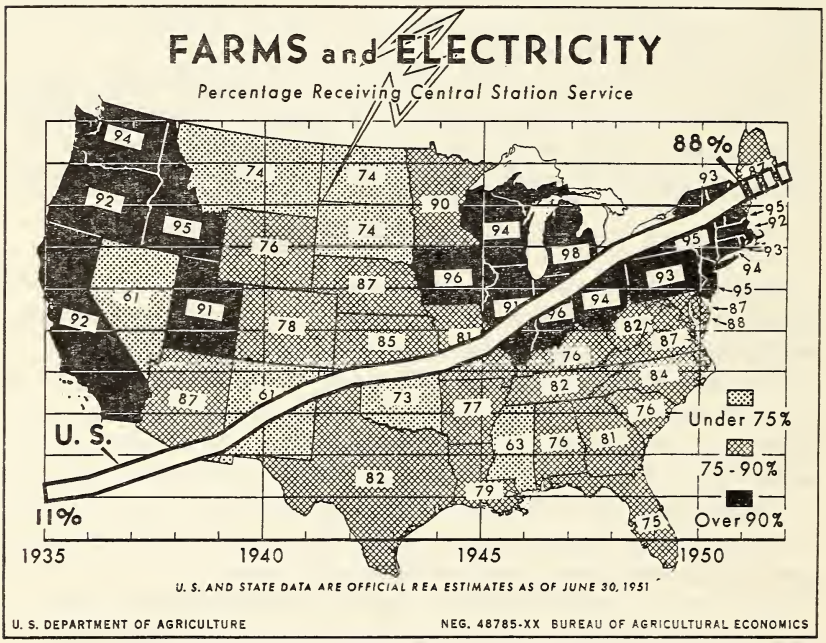
Less than half the farms of this country have telephone service, and only about half of those with telephones consider the service adequate.

The REA telephone lending program, launched late in 1949, continued to pick up speed during 1952. Almost 136,000 new rural subscribers were assured of modern telephone service as a result of REA

loans. About 115,000 others were scheduled to get modern dial telephones to replace antiquated and undependable equipment. During the first 32 months of the telephone program, REA had approved more than 82 million dollars in loan allocations to 110 commercial companies and 80 cooperatives for extending and improving telephone service on an area-coverage basis in rural areas of 39 States. Almost 500 loan applications totaling 89 million dollars from 42 States and Alaska are under consideration.

The importance of adequate rural electric power in the present emergency has been even more forcibly demonstrated. To meet the Nation's production needs, farmers are relying increasingly on electric power as a factor in more efficient farming.

When the Rural Electrification Administration was established in 1935, only 1 farm out of 10 had central-station service. Today, the figures are almost reversed—88.1 percent of the farms have central-station service, or approximately 9 out of 10.



More than 88 percent of all farms in the United States now have electric service from central-station sources. In 1935 only 11 percent of our farmers had this service. Half of this great increase came about since 1945.

Nineteen states, principally in the older electrified areas of the Northeast and West have more than 90 percent of their farms electrified. Distribution lines are being extended to accommodate additional farms.

Electricity and electrical equipment are playing an increasingly important role on farms in all sections of the country.

A total of 3,770,000 rural consumers are now being served over 1,210,000 miles of REA-financed lines. More than half of all electrified farms get their service from REA-financed facilities.

In addition to their defense-supporting activities in providing electric service to farms, rural electric cooperatives are making another important contribution to our mobilization efforts. In nearly every section of the country they are supplying power to industrial plants, airfields, radar and weather stations, shipyards, and to hundreds of small rural industries.

During the year REA borrowers stepped up their effort to assist farmers in making better productive use of electric service. In a few areas, the results of this campaign are already evident, and they will be increasingly evident for many years in the future.

The staff reorganization became effective July 1, 1952. Under this reorganization, a single point of contact is provided in REA for each electrification borrower, replacing the multiple contacts of the functional type of organization used in the developmental years of the program. Numerous activities formerly handled by REA are transferred to the borrowers. These changes make possible transfers of REA personnel from the electric to the telephone program, resulting in an increase of approximately 50 percent in REA's telephone staff. Separate divisions are established for administration of the telephone program.

Credit Big Factor in 1952 Production

In 1952 the agencies concerned with extending agricultural credit continued their excellent record of sound credit service to hundreds of thousands of farmers. Both the Farm Credit Administration and the Farmers Home Administration have adapted their programs to the mobilization effort.

Farm Credit Administration

During the year farmers and their cooperatives, who had a sound basis for loans, have found an ample supply of credit available from the cooperative credit system supervised by the Farm Credit Administration. Although the various credit units that make up the system endeavored to avoid speculative loans that might be inflationary, they kept in mind that financing the production and marketing of a large volume of farm products helped prevent scarcity and thereby was decidedly anti-inflationary.

Farmers and their cooperatives borrowed 2.4 billion dollars from their cooperative credit system in the year ended June 30, 1952. This was an increase of 200 million dollars over the previous year.

Confronted with the need for increased production to meet defense needs and with higher farm operating costs, farmers borrowed 1.4 billion dollars from the 499 production credit associations to use in producing crops and livestock. On July 31, 1952, PCA loans outstanding reached an all-time record of 805 million dollars.

The 475,500 members of these credit cooperatives had an investment of 88 million dollars in capital stock in these associations on June 30, 1952, an increase of about 10 million dollars, or 13 percent over a year ago. By September 30, 1952, one-half of the production credit associations were entirely member-owned and in most of the other associations member-owned stock plus accumulated earnings amounted to more than 75 percent of the total net worth. The Government-owned stock in these credit co-ops was reduced to 8.7 million dollars compared with a peak of 90 million dollars in the 1930's. They have accumulated earnings of 78.6 million dollars which are being used for reserve purposes to insure their future ability to provide continuing credit service.

Farmer-members of 68 production credit associations shared in the savings of these associations. They received $586,000 in dividends on stock and patronage refunds.

Farmers borrowed more money from the wholly farmer-owned 12 Federal land banks and 1,200 national farm loan associations in the year ended June 30, 1952, than in any year since 1935. High prices of farm lands, the need for credit to make improvements on farms, and refinancing by some farmers of accumulated short-term debts were among the factors that accounted for farmers' increased long-term credit needs during the year.

Farmers obtained 41,500 loans amounting to 237 million dollars from the land banks through their national farm loan associations in the year ended June 30, 1952. On June 30, farmers had outstanding nearly 311,000 long-term mortgage loans totaling 1,046 million dollars—an increase of about 7 percent over the previous year.

In order to finance their lending operations the land banks marketed two issues of consolidated bonds during the year. This brought their outstanding bonds on June 30 to 815 million dollars.

The national farm loan associations and land banks have built up combined reserves of 275 million dollars to insure their future financial stability.

Farmers' cooperatives—marketing, purchasing, and business service—increased their volume of business in the year. This, together with the rising price of goods and services, made it necessary for them to use more credit. As a result, farmers' cooperatives borrowed 537 million dollars from the 13 banks for cooperatives in the year ended June 30, 1952. On June 30, 1,995 farmers' cooperatives with a membership of more than 3 million were using credit from the 13 banks.

The growing credit needs of individual farmers and stockmen were reflected in the loans and discounts of the 12 Federal intermediate credit banks—which in the main sell debentures to investors to provide funds for the lending agencies—totaling more than 2 billion dollars in the year ended June 30, 1952. The greater part of this money, 82.7 percent, was used by production credit associations; other financing institutions accounted for 10.9 percent; banks for cooperatives 5.8 percent; and farmers' cooperatives 0.6 percent.

During the year the Cooperative Research and Service Division of the Farm Credit Administration carried on 102 research and service projects to help farmers' cooperatives solve their problems and increase their efficiency in marketing their members' products, purchasing supplies for them, and providing business services. The division focused particular attention on improving management as a means of increasing cooperative efficiency.

Farmers Home Administration

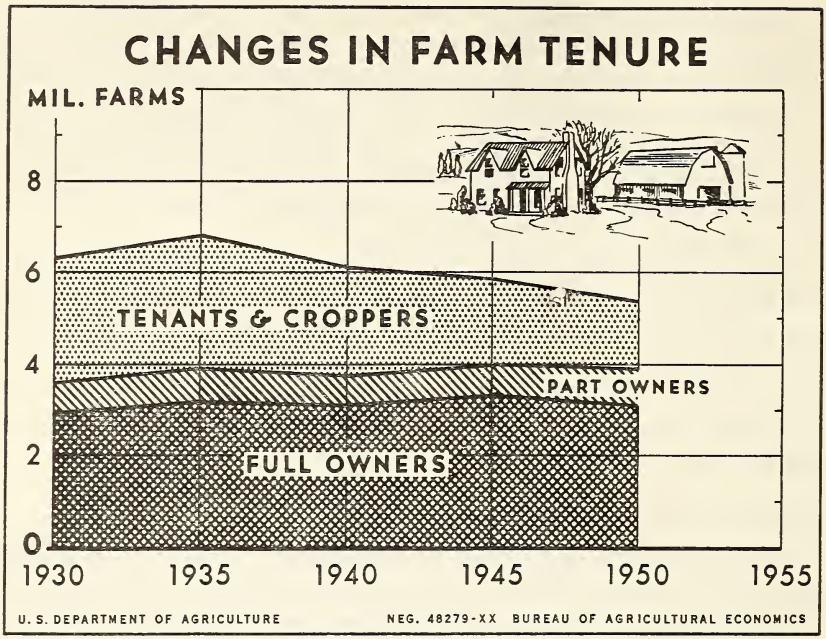
Major emphasis of this agency during 1952 was placed on helping small farmers make full use of their land and family labor supply in order to produce the food, feed, and fiber urgently needed for defense. The families borrowed funds to purchase foundation livestock, equipment, tractors, fertilizer, and similar operating essentials needed to turn their farming operations into paying enterprises. They also borrowed to purchase family-type farms, to add more acres to farms already held, or to improve them so they would produce efficiently. Under the farm housing program, they borrowed to build or repair houses and other essential farm buildings. Installation or improvement of farmstead water supply and field irrigation systems called for loans in the Western States.

About 235,000 farm families whose needs could not be met through regular credit channels used the supervised credit program during the year. Included in the number were those who borrowed to put land back into production after flood, drought, or other disaster.

Approximately $155,061,000 was loaned from appropriated funds, 53 percent of the total being loaned to veterans.

A widespread drought in the summer of 1952 made it necessary to declare most of the Southeastern and New England States as areas where special disaster loans could be made to enable farmers to maintain production.

About 165,000 families, including new borrowers and those farming with supervised credit received earlier, were assisted in planning and carrying on sound operations. Most of the 65,934 operating loans made in 1952 were 5-year adjustment loans designed to create sound, balanced farming set-ups. Nearly half the 3,606 farm ownership



In the decade 1940 to 1950 when the number of farm operators decreased by about 700,000, or 12 percent, there were significant changes in the tenure pattern on American farms. The number of full owners remained relatively unchanged, increasing less than one percent. The number of part owners went up substantially, with the 1950 census showing 200,000, or 34 percent, more than in 1940. The greatest change was in the number of tenants, the census indicating a decline of over 700,000, or about 40 percent. The number of croppers declined also, with 200,000, or 36 percent, fewer reported in 1950 than in 1940.

From 1940 to 1950 the average size of full owner-operated farms increased 9 percent; of part owner-operated farms 4 percent; of tenant-operated farms 11 percent. The average size of cropper-operated farms decreased 6 percent.

loans made in 1952 were for development or enlargement of unproductive farms into efficient family-type units, and the remaining loans were for the purchase of farms.

Substantial increases in farm production, and in equities in farm equipment, livestock, land, and other means of production, were shown in the records of 35,595 borrowers who repaid their operating loans in full during the year, and continued to farm. Their farm production increased from an average of $2,021 to $3,356 during the 3½ years they operated with the aid of supervised credit. Their average net worth rose from $2,667 to $5,029. They achieved production increases of about 50 percent per acre.

In June 1952 Congress passed legislation extending the farm housing program until June 30, 1954.

Federal Crop Insurance

The important role that Federal all-risk crop insurance can play in stabilizing the Nation's agriculture where crop disaster strikes was strongly emphasized again in 1952, as it was in 1951, by weather conditions that destroyed many crops and sharply reduced production in large areas of the Nation.

Although this insurance program which offers to farmers the opportunity to insure their crop investments against loss from unavoidable causes is operating in only about one-third of the Nation's agricultural counties at this time, its contribution is very significant in strengthening the Nation's farm production facilities at the points where they were weakened the most. During 1951 and 1952 more than 40 million dollars in crop insurance indemnities have been paid to insured farmers who through no fault of their own failed to produce enough to return the money invested in their effort to contribute toward an abundant national farm production.

The money that went to pay these thousands of insured crop investment losses came from premiums paid by farmers for this all-risk insurance. This indicates the progress that has been made by the Federal Crop Insurance Corporation in recent years toward improving the soundness of the basis on which this important insurance protection is made available to farmers. The goal of the Corporation is to develop crop insurance so that farmers throughout the Nation may have the opportunity to insure their crop investments against loss from the many production risks over which they have no control. Under this program the premiums paid for this protection balance the losses paid over a period of years.

In the vast area over which the Nation's farm production facilities are scattered it is normal every year for crop disasters to occur in several areas of varying extent, just as it is normal for some farmers to suffer crop losses in areas where production generally is high. The crop disasters that occurred in 1951 and 1952, which for a time threatened crop destruction on an extensive scale throughout large areas of the Nation, called to mind the droughts of the 'thirties which put so many farmers off their farms and left others in desperate financial circumstances. It was after those devastating droughts that the crop insurance program was started to enable farmers to survive such disasters without the necessity for relief spending and financing that otherwise would be required.

The need for continued development and expansion of the Federal crop insurance is strongly illustrated by the indemnities paid to thousands of farmers in 1951 and 1952. These payments gave important support to the financial and credit position of these farmers who through no fault of their own had little or no crop to sell.

National School Lunch Program

This program helps make food available for use in well-balanced lunches for school children. Thus it broadens the market for agricultural food commodities. Moreover, it promotes the total efficiency of the Nation by improving the health and well-being of millions of school children.

During the past school year more than 9 million children—about 30 percent of all children attending school—participated in school lunch programs receiving Federal assistance. Of the 1½ billion meals eaten in school by these children, more than 70 percent represented meals designed to provide one-third of the child's daily requirements.

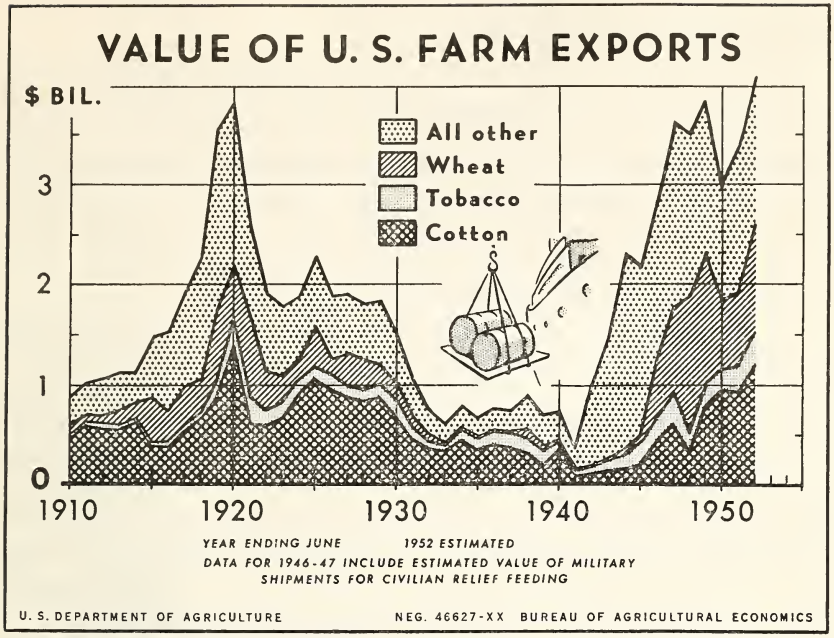
Assistance to school lunch programs began in the mid-1930's. It is now authorized on a permanent basis under the National School Lunch Act of 1946. This assistance has helped to establish high standards for school food services and has aided thousands of communities to provide for the children the kind of lunches needed to safeguard health and improve food habits.

During the past year participating schools paid local suppliers 250 million dollars for foods needed in the program. The Federal Government provided, in cash and donated commodities, 23 cents of each school lunch dollar.

FOREIGN FARM TRADE

American agricultural exports reached an all-time high in value in 1952 in spite of increasing difficulties in finding foreign markets for our products. The reliance of foreign countries upon United States economic aid has progressively diminished year by year until in 1951–52, 80 percent of their purchases of American farm products were made with earned dollars rather than "aid" dollars. This fact, and the general shortage of dollar exchange, have forced United States farm products to compete in the foreign markets, not only with the same or similar products produced in the countries represented by these markets, but also with products from nondollar sources. In addition, our farm exports have had to compete for dollars with the requirements of these foreign countries for American industrial and military items vitally needed in the program of strengthening their defenses against aggression.

Consequently, many foreign countries, which formerly were among our more important historical markets for farm products, have built up an increasingly complex web of controls on imports and exchange, particularly controls of dollar exchange.



Thus, foreign trade problems are particularly acute in view of the fact that American agriculture is now tooled up to export at the highest rate in our history. In 1951 United States agricultural exports were 5½ times as large in value and twice as large in volume as they were in the 1935–39 period. In 1952 we have achieved a near all-time record wheat crop at the same time that the world wheat crop reached an all-time high. Similarly, American production of tobacco, cotton, lard, and dried and fresh fruits can be maintained at present levels only if exports ranging from 25 to 50 percent of our total production of these commodities can be achieved. The alternative to maintaining the present high level of exports would appear to be the re-institution of production allotments and a general cutback all along the line with all of the inevitable and unpleasant consequences which such action would have for the American economy as a whole.

The Department has recognized the importance of maximum efforts to maintain and expand the export markets for farm products. In addition to continuing its long-established activities in supplying to producers and the trade information on foreign production, demand, and competition, it has, during the past year, with funds obtained under the Agricultural Marketing Act of 1946, placed major emphasis on the development of market outlets. Three full-time marketing specialists were maintained in Europe, studying and reporting on fruit, tobacco, and cotton marketing conditions. Moreover, within the limit of funds available, part-time marketing specialists made

marketing surveys in Europe and elsewhere with respect to grains, citrus fruits, and dairy products.

The Department devoted a great deal of attention during the year to the protection of American agricultural interests under the General Agreement on Tariffs and Trade. This included observation of the actions of other participating countries that affect the freedom of entry of our products, and also the actual or contemplated actions by the United States which might unduly curtail the opportunities of those countries to make sales in the American market in order to earn the dollars required for the purchase of our farm products.

The responsibilities of the Department for Point Four activities involving foreign technical assistance have grown substantially in volume during the year. It served as the recruiting agency for American agricultural technicians sent abroad; it also conducted a training and orientation program for foreign agricultural officials, scientists, and technicians visiting the United States. In these activities the Department functions in a liaison capacity between the Technical Cooperation Administration of the Department of State on the one hand, and the land-grant institutions and experiment stations, on the other. It also conducted foreign visitor training programs for the Mutual Security Agency and other Government agencies. During 1951–1952, 147 American agricultural technicians were recruited and sent abroad; and approximately 3,200 foreign agricultural officials, scientists, and technicians were received and directed through training courses ranging from 1 or 2 weeks to a full year.

FAMILY FARM POLICY REVIEW

Last year's report mentioned the start of a review of program objectives covering the work of every agency of the Department. Known as the Family Farm Policy Review, the purpose of this survey was to see how well the Department programs are serving family farms throughout the Nation and how these programs can be improved to protect and preserve the traditional American pattern of family farming.

The county agricultural mobilization committees, made up of local representatives of the Department and county agricultural employees, arranged meetings in which farmers and others interested in agriculture participated and expressed their views as to what changes should be made in Department programs in order better to serve the family farm.

A total of more than 7,000 meetings were held, including one or more in practically every county of the Nation. Attendance at the meetings varied from very few to as many as 1,000. Total attendance was more than 200,000. Farmers, bankers, other businessmen, minis-

ters, agricultural teachers, representatives of newspapers, parent-teacher associations, civic organizations, and Department employees were recorded as attending.

At the conclusion of these meetings, each county agricultural mobilization committee submitted a report for the county summing up the changes and improvements in agency programs which were suggested. These reports were reviewed by the State agricultural mobilization committees, which also prepared reports.

After discussion by the departmental committee, which included non-Government representatives, a task force was set up to summarize the reports.

On January 7, 1952, I directed Department field agencies represented on the State and county agricultural mobilization committees to put into effect such recommendations growing out of the review as were found to be desirable and within existing authority.

A number of actions have already resulted in better public service. For example, the review was chiefly responsible for the decentralization of commodity loan programs of the Production and Marketing Administration.

Other steps taken as a result of the review range from such administrative actions as change in procedure for the purpose of increasing speed of service and shifts of personnel into areas where additional assistance is needed, to such program actions as changes in loan appraisal policies.

REORGANIZATION OF THE DEPARTMENT

Last year's report summarized the actions taken under my Memorandum No. 1278 of February 15, 1951, to bring about the closest possible coordination of our conservation programs.

These actions have resulted in the development of a sounder and better coordinated soil and water conservation program. This has come about not only because of the added emphasis that the realignment has given to properly planned and installed permanent-type soil conservation practices, but also to its effect in keying conservation programs more than ever before to the particular needs of each county, community, and farm, and of improving the teamwork between the agencies serving farmers and ranchers in this field.

The technical assistance program of the Soil Conservation Service and the conservation aids provided under the Agricultural Conservation Program have been geared together much more closely than before. A spirit of teamwork has developed between the SCS technicians and the PMA county committees as they have worked together in developing Agricultural Conservation Program handbooks, and

again, as SCS technicians have worked with county committees in servicing ACP participants in carrying on permanent practices.

There has also developed a greatly improved relationship between the governing bodies of the soil conservation districts and the PMA county committees—both made up of local people. An increasing number of PMA committeemen have been urging that ACP participants become soil conservation district cooperators, if they have not already done so.

Memorandum No. 1278 has resulted in a more careful appraisal of the need for certain types of conservation work before program assistance is approved and in more uniform standards of performance. It has also assured, for a greater number of farmers than previously, assistance in performing conservation work. This has materially stimulated the willingness of farmers to undertake the installation of conservation plans.

The realignment effected by Memorandum No. 1278 also provided for closer integration of forest and farm conservation programs. This phase of the realignment perhaps has not been fully recognized outside the Department but it is of major importance.

A memorandum approved on November 13, 1951, provides that Forest Service, Production and Marketing Administration, and Soil Conservation Service, as well as other Department agencies, are to help stimulate the interest of farmers in good woodland management by bringing about fuller appreciation of the values of farm woodlands. Under the provisions of the memorandum, specialized technical forestry assistance is, in general, to be handled by the Forest Service in cooperation with State foresters. Although treatment of farm woodlands provided for in conservation plans prepared by farmers and ranchers with the assistance of SCS is carried on primarily to conserve soil and water, it calls also for the carrying on of good forestry practices. The memorandum also provides that the Forest Service will assure specialized technical forestry assistance to ACP participants wherever available.

These changes have resulted in a more general recognition of the important place of forestry in farm conservation plans, of the need for a clearer formulation of forestry practices in State farm conservation programs, and of the increased total payments earned by farmers for forestry practices under the Agricultural Conservation Program.

Although the programs of the Production and Marketing Administration, the Soil Conservation Service, and the Forest Service were most directly affected by Memorandum 1278, other agencies of the Department also shared in the benefits of better teamwork and understanding.

Good progress has been made in bringing our offices in each State and in each county together under one roof. This program was begun

in February 1951. As of November 1, 1952, State offices were housed together in 25 States. Consolidation has been authorized and space is being sought or prepared in 12 additional States.

As of October 1, 1952, consolidation has been accomplished in 1,813 counties, or 60 percent of all the counties having USDA offices.

The major difficulty encountered in completing the consolidation program is lack of adequate office space. In some cases, geographical factors make relocation difficult; for example, one agency may have its principal operations in one part of the State and another agency in a different part.

The consolidation program is already producing very important benefits. Many opportunities arise for Department offices to assist one another and to coordinate their operations. This results in better service to the public, as well as in economies in sharing space, services, and equipment, such as conference rooms, duplicating service, storage, and similar facilities. Better handling of defense activities is also apparent. Of especial importance is the greater convenience and saving of the time of farm people and others who visit Department offices.

AMERICAN AGRICULTURE LOOKS AHEAD

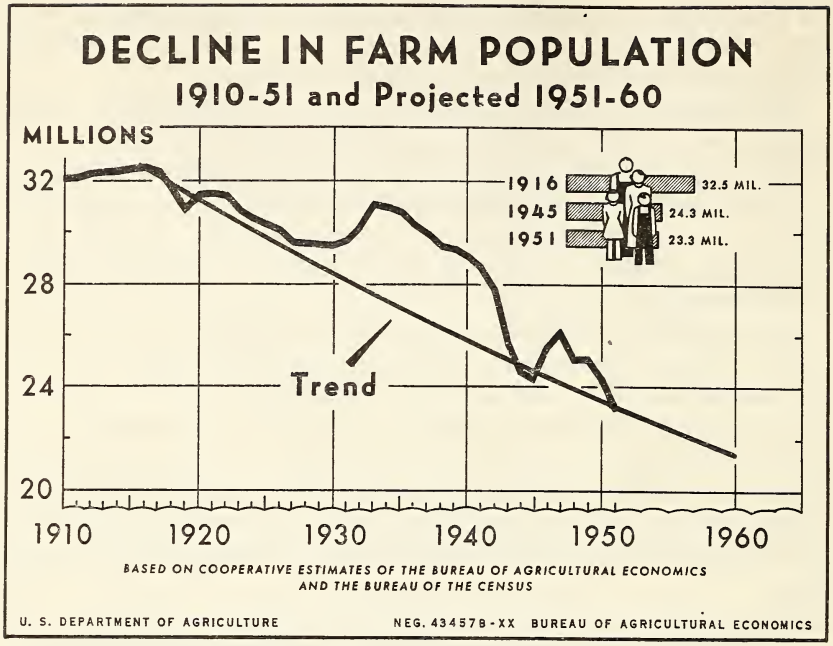
The farm population of the United States is estimated at about 23 million persons, a decline of about 6 million since 1940, and 9½ million less than the peak of 1916 when 32½ million persons were living on farms. In 1916 nearly one-third of the population of the Nation was farm population. In 1940, 22 percent of the people lived on farms. Now, near the close of 1952, it is estimated that less than 15 percent of the people of the United States are farm people.

Meantime, the total population of the country has grown from a little more than 100 million in 1916, to 132 million in 1940, and to 157 million in 1952.

Thus the farmers of the United States today are called on to produce more than they have ever produced before. Moreover, the need for food and fiber will continue to increase in the years ahead. Even without the unsettled conditions of a war-threatened world—conditions which require a highly productive agriculture in this country—demand for farm products would be destined to grow.

Can our agriculture meet the challenge? Given favorable conditions, the answer must be resoundingly affirmative. It would be as great an error to underestimate the future capacity of our agriculture as it would be to underestimate the future requirements of our people.

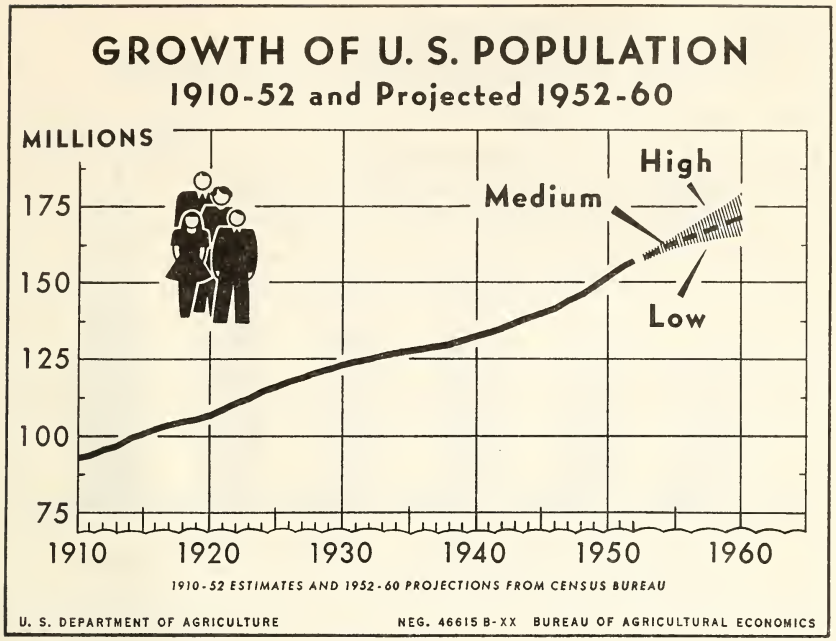
A summary of the reports of 48 State committees appraising agriculture's productive capacity during the defense period indicates that a total farm output about 20 percent greater than in 1950 and



Since the peak of farm population in 1916, the trend in the number of persons living on farms has been generally downward. The depression in the 1930's brought a temporary increase, but World War II with its demand for manpower in industry and the armed forces caused a rapid loss in the farm population. The high level of nonfarm employment prevailing since 1946, together with the defense mobilization following the outbreak of hostilities in Korea, have been conducive to a continuation of a relatively high rate of net migration from farms.

18 percent greater than in 1951 could be attained within the next 4 or 5 years, if necessary. These projections assume that weather would be average throughout the period; that price and income incentives would be sufficient to encourage higher production; that adequate quantities of fertilizer, machinery, and other production goods would be available at costs that would encourage their use as substitutes for land and labor; and that educational and operational programs would be redirected to speed up adoption of improved practices. Under these favorable conditions, farmers could produce about a fifth more both of crops and of livestock than they did in 1950.

Most of the "attainable" increase in production would result from adoption of improved practices that are already known and from greater use of nonfarm goods, such as fertilizer and machinery. Both labor requirements and acres of cropland would remain at about 1951 levels. But acreage planted to crops would increase by about 11 mil-

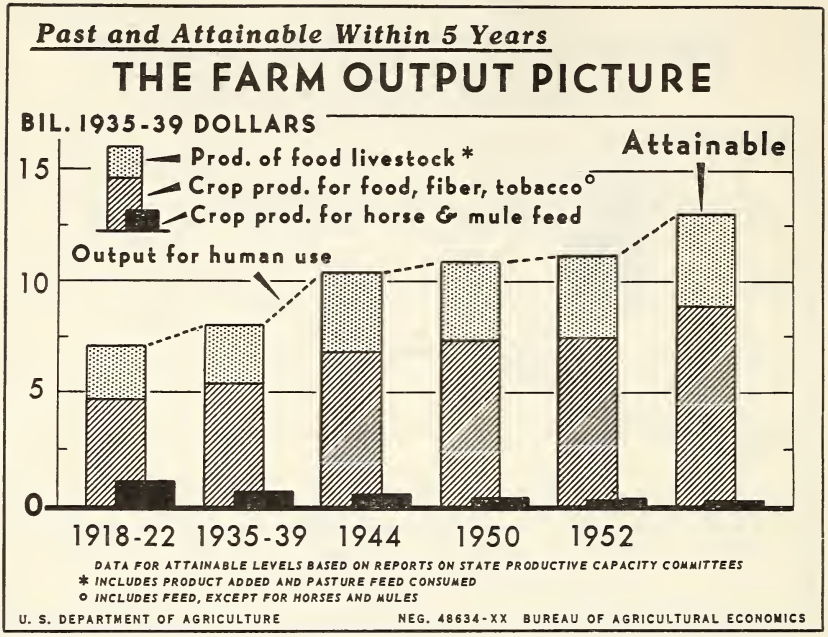


Three hundred years ago this country had a total population of only 52,000, or less than the 1950 total for Muncie, Ind. Our population in July 1952 numbered 157 million, reflecting a growth which has been one of the major phenomena in world history. During the last decade our population has increased more than ever before in a 10 year period, and prospects are for continued gains in the years ahead. By 1960, it is expected that over 170 million people will be living in the United States, on the basis of the medium census projection.

lion acres (3 percent) through the use of some of the better cropland that was idle in 1951.

Grassland and conservation systems of farming would be encouraged in all parts of the country through a shift from intertilled to close-growing and sod crops. A higher level diet would be provided through more emphasis on livestock and livestock products. Total production of meat, including poultry, would increase from 178 pounds per capita in 1951 to 199 pounds per capita for the population expected by 1955.

Regionally, the greatest increases in production would be in the South, where both recent research and farm testing indicate that large increases are possible from such improved practices as heavy nitrogen fertilization of corn and pasture improvement for year-round grazing. Total farm output in the South would be one-fourth greater than in 1951, compared with a 16-percent increase in the North Central region, 13 percent in the Mountain, and 9 percent in the Northeast and Pacific regions. Approximately 44 percent of



the projected increase in total output would be contributed by the South, 41 percent by the North Central region, and about 5 percent each by the Northeast, Mountain, and Pacific regions.

Production of feed and livestock would make up a major part of the increased production in all regions, and 58 percent of the increased production for the country as a whole. Food grains would represent about 15 percent of the projected increase between 1951 and 1955 for the Nation as a whole; fruit, truck, and vegetable crops, 9 percent; and cotton about 5 percent.

Obviously, such a rapid increase in production would involve certain costs. More machines and other equipment and greater quantities of lime, fertilizer, and pesticides would be required. About 70 percent more commercial fertilizer than was used in 1950 would be needed at a cost that would encourage its use. Cost-price relationships would have to be favorable generally in order to encourage farmers to make the extra effort and to incur the higher costs and the additional risk that are required in high-level production. Moreover, the framework for this study assumed that average weather, favorable cost-price relationships, availability of production goods, and other conditioning factors required to encourage production would begin in 1951 and would be maintained throughout the next 4 or 5 years.

If the projected framework conditions do not materialize, production by 1955 should not be expected to reach the levels that are estimated to be attainable by that time. The occurrence of a pro-

longed drought, for example, or lower prices for some of the major agricultural commodities, would delay achievement of these attainable levels of production. But these things would not invalidate the analysis. Rather, they would set forward for one or more years the timetable for their achievement.

This analysis clearly indicates that largely through adoption of improved practices, American farmers can meet foreseeable demands for farm products if they are given incentives to produce, if the necessary production goods are available, and if there is sufficient time to make the required adjustments.

If we can do this much in the next 3 or 4 years, we can do much more in the ensuing 20. But we shall need a clear appreciation on the part of the American people as a whole of the stake each of us has in a sound, productive, and prosperous agriculture.

CHARLES F. BRANNAN,
Secretary of Agriculture.

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